Interim Snapshot of OU4 Data Needs and New Data Collection Plans
September 12, 2006

The Draft Conceptual Site Model (CSM) for Operable Unit 4 (OU4) of the Libby Site, currently undergoing revision based on input from the community, illustrates the various exposure pathways by which individuals in the main commercial and residential areas of Libby may be exposed to Libby Amphibole (LA). For each of the individual exposure pathways of interest, as well as for cumulative exposures, the goal of the Baseline Risk Assessment (BRA) is to evaluate: 1) risks as they existed before EPA began cleanup actions, 2) the level of risk remaining after EPA cleanup actions are complete, and 3) risks to individuals in the future. As previously discussed during community meetings, EPA has been evaluating data collected from the Libby Site to identify those data that may be useful in the BRA or, alternatively, existing data gaps with respect to the various exposure pathways. Points of consideration with regard to the adequacy of the available data include: temporal and spatial representativeness, analytical sensitivity of the samples, and the number and quality of the data points available for use in risk assessment. To date, EPA data evaluation efforts have focused on available information concerning three exposure pathways: outdoor ambient air, outdoor air near disturbed contaminated soils, and air inside homes and businesses (indoor air). While these data evaluation efforts are ongoing, EPA has initially identified several exposure pathways in need of additional data collection. As the data evaluation process proceeds and additional data gaps are identified, updated information will be shared with the community, along with any plans to collect the needed information.

Exposure Pathway	Available Data	Data Issues or Needs	New Sampling Plans
Outdoor Ambient Air	404 samples of outdoor ambient air are available (collected during the 2000-2002 time period).	These data are not adequately representative over time and space and have other inadequacies (such as poor analytical sensitivity) with respect to risk characterization needs.	EPA will begin a monitoring program soon that will provide much improved data on levels of asbestos in outdoor ambient air in the main residential & commercial area of Libby, both now and as EPA cleanups continue.
Air Near Disturbed Soil	EPA has evaluated a number of different outdoor soil locations by disturbing the soil via several different methods (e.g., raking, mowing, digging), and measuring the levels of LA in personal air samples. (For convenience, we refer to this as Activity-Based Sampling, or ABS). The results indicate that the levels of LA in air during ABS are highly variable, depending on a wide range of factors.	Because of the high variability between samples, more ABS sampling is needed to help ensure the data are adequately representative of the various levels of soil contamination and soil disturbance conditions of interest.	EPA will develop sampling and analysis plans to provide needed information regarding this exposure pathway. Special focus will be placed on soils with lower and non-detect levels of LA contamination, as well as, areas with visible vermiculite present in the soil.
Indoor Air	EPA has collected samples from both stationary and personal samples under both "routine" and "active cleaning" ABS scenarios. The data indicate that average levels of LA are higher during active cleaning than during routine activities, and that average levels in personal air samples are higher than in stationary air samples.	While the current data provide a good starting point for assessing exposures in indoor air, the number of samples are not sufficient, nor is the data sufficiently representative temporally or spatially to meet risk characterization needs.	EPA will develop sampling and analysis plans for the collection of indoor air samples at additional homes and businesses in Libby that are representative of conditions, both before and after EPA cleanup actions have occurred.